

Amendments to the Claims:

1. (Currently amended) A temperature-sensitive state-changing hydrogel composition, comprising:

~~1-10~~ 2 wt % of locust bean gum as a branched gelation polymer, ~~the branched gelation polymer being at least one water soluble polysaccharide polymer selected from the group consisting of galactomannan, glucomannan, guar gum, locust bean gum and pluronic;~~

~~0.5-5~~ 0.6 wt % of carrageenan as an electrolyte gelation polymer, ~~the electrolyte gelation polymer being at least one polysaccharide electrolyte polymer selected from the group consisting of agar, algin, carrageenan, xanthan and gelan;~~

~~0.5-5~~ 2.87 wt % of skin-communication enhancer, the skin-communication enhancer being at least one polysaccharide selected from the group consisting of chitosan derivatives, proteoglycans, elastin, collagen, and hyaluronic acid, or protein and aloe extract;

~~1-10~~ wt % of natural biomaterial, the natural biomaterial being a vegetable, animal, or mineral natural extract extracted from aloe, green tea, ginseng, wood vinegar, pine needles, ginko leaves, propolis, mulberry leaves, or silkworms;

~~3-30~~ 20 wt % of ~~polyhydric alcohol, the polyhydric alcohol being propylene glycol or glycerine in a form of a water soluble liquid;~~

~~4-10~~ 0.46 wt % of at least one functional additive, the functional additive being an additive capable of providing stability or beauty functionality to the hydrogel; selected from the group consisting of and ~~is~~ methylparaben, propylparaben, kojic ~~acid,~~ imidazolidinylurea, and Twin 80 ~~or retinol;~~ and

~~30-93 wt %~~ remainder of water based on a total weight of the composition,

wherein, the hydrogel is transformed into a fluid state at 30-50°C.

Claims 2-7 (Canceled).

8. (Currently amended) A method of producing a hydrogel composition, comprising:

Mixing 2 ~~1-10~~ wt % of ~~a branched gelation polymer selected from the group consisting of galactomannan, glucomannan, guar gum, locust bean gum as a branched gelation polymer,~~ 0.6 and pluronic, ~~0.5-5~~ wt % of carrageenan as an electrolyte gelation polymer, 20 wt % of glycerine and 0.46 ~~selected from the group consisting of agar, algin carrageenan, xanthan and gelan,~~ 1-10 wt % of a at least one functional additive, the functional additive being an additive capable of providing stability or beauty functionality to

the hydrogel selected from the group consisting of methylparaben, propylparaben, ~~kojie acid~~, imidazolidinylurea, and Twin 80 ~~and~~ retinol, ~~and 3-30 wt % of a polyhydric alcohol~~, with each other;

adding remainder ~~30-93 wt %~~ of water to the mixture at room temperature;

heating the resulting mixed solution to 45-95°C to produce a gel solution;

adding 2.87 ~~4-10 wt %~~ of at least one selected from the group consisting of natural biomaterial extracted from aloe, green tea, ginseng, wood vinegar, pine needles, ginko leaves, propolis, mulberry leaves, or silkworms to the gel solution;

~~—adding 0.5-5 wt % of a skin communication enhancer selected from the group consisting of chitosan, chitosan derivatives, proteoglycans, elastin, collagen, and aloe extract~~ hyaluronic acid to the gel solution while maintaining the gel solution at 45-95°C; and

cooling the resulting gel solution to room temperature, wherein the hydrogel composition has the ability to transform to a fluid state at a temperature between 30-50°C.